

401 KAR 53:010. Ambient air quality standards.

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120, 40 C.F.R. Parts 50, 51, 52, 53, 58, 75, 81, 42 U.S.C. 7401-7671q

STATUTORY AUTHORITY: KRS 224.10-100(5), 42 U.S.C. 7401-7671q

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation establishes ambient air quality standards necessary for the protection of the public health, the general welfare, and the property and people in the Commonwealth of Kentucky.

Section 1. Ambient Air Quality Standards. The primary and secondary ambient air quality standards for sulfur oxides, particulate matter, carbon monoxide, ozone, nitrogen dioxide, lead, hydrogen sulfide, gaseous fluorides, total fluorides, and odors are specified in Appendix A of this administrative regulation. Measurements shall be made by methods and frequency specified in Section 2 of this administrative regulation.

Section 2. Methods of Measurement. For those air contaminants for which there are state ambient air quality standards that are the same as the national ambient air quality standards, measurements shall be made in accordance with 40 C.F.R. Parts 50 and 53. For other air contaminants for which there are state ambient air quality standards, measurements shall be made according to this administrative regulation, reference methods, or equivalent methods. The frequency of measurements for all air contaminants shall be prescribed by the cabinet, in accordance with 40 C.F.R. Parts 50 and 53, 401 KAR 50:015, or this administrative regulation.

Section 3. Within sixty (60) days of promulgation or revision of any primary or secondary ambient air quality standard by the U.S. EPA, the cabinet shall initiate proceedings to promulgate or review this administrative regulation in conformance with the federal ambient air quality standards.

APPENDIX A TO 401 KAR 53:010 AMBIENT AIR QUALITY STANDARDS The following air contaminant concentrations shall apply to any single point location:		
Pollutant	Primary Standard	Secondary Standard
Carbon Monoxide Eight (8) hour average One (1) hour average	9 ppm ⁽¹⁾ (10 mg/m ³) 35 ppm ⁽¹⁾ (40 mg/m ³)	-- --
Lead Rolling three (3) month mean	0.15 µg/m ³	Same as primary
Nitrogen Dioxide Annual arithmetic mean One (1) hour average	53 ppb (100 µg/m ³) ⁽²⁾ 100 ppb	Same as primary --

Ozone One (1) hour average Eight (8) hour average 2015 standard 2008 standard 1997 standard	0.12 ppm ⁽³⁾ 0.070 ppm 0.075 ppm 0.08 ppm ⁽⁴⁾	Same as primary ⁽³⁾ Same as primary Same as primary Same as primary ⁽⁴⁾
Particulate Matter, measured as PM ₁₀ Twenty-four (24) hour average	150 µg/m ³	Same as primary
Particulate Matter, measured as PM _{2.5} Annual arithmetic mean 2012 standard 2006 standard 1997 standard Twenty-four (24) hour average 2012 standard 2006 standard 1997 standard	12.0 µg/m ³ 15.0 µg/m ³ 15.0 µg/m ³ 35 µg/m ³ 35 µg/m ³ 65 µg/m ³	⁽⁵⁾ Same as primary Same as primary Same as primary ⁽⁵⁾ Same as primary Same as primary
Sulfur Dioxide Annual arithmetic mean One (1) hour average Three (3) hour average Twenty-four (24) hour average	0.030 ppm ⁽¹⁾⁽⁶⁾ 75 ppb -- 0.14 ppm ⁽¹⁾⁽⁶⁾	-- -- 0.5 ppm ⁽¹⁾ --
Gaseous Fluorides - (expressed as HF) Annual arithmetic mean One (1) month average One (1) week average	400 µg/m ³ (0.5 ppm) -- -- 800 µg/m ³⁽¹⁾ (1.0 ppm)	-- 0.82 µg/m ⁽¹⁾ (1.00 ppb) 1.64 µg/m ³⁽¹⁾ (2.00 ppb) 2.86 µg/m ³⁽¹⁾

Twenty-four (24) hour average	--	(3.50 ppb)
Twelve (12) hour average		3.68 $\mu\text{g}/\text{m}^3$ ⁽¹⁾ (4.50 ppb)
Hydrogen Sulfide One (1) hour average	--	14 $\mu\text{g}/\text{m}^3$ ⁽¹⁾ (0.01 ppm)
Odors	--	A mixture of one (1) volume of ambient air and seven (7) volumes of odorless air shall have no detectable odor at any time.
Total Fluorides Dry weight basis (as fluoride ion) in and on forage for consumption by grazing ruminants:		
Average concentration of monthly samples over growing season (not to exceed six (6) consecutive months)	--	40 ppm
	--	60 ppm
	--	80 ppm
Two (2) month average		
One (1) month average		

Footnotes:

¹ Average is not to be exceeded more than once per calendar year.

² The official level of the annual NO₂ standard is 0.053 ppm, equal to fifty-three (53) ppb, which is shown for the purpose of clearer comparison to the one (1) hour standard.

³ The U.S. Environmental Protection Agency revoked the one (1) hour ozone standard in all areas in 2005. However, some areas have continuing obligations under the standard.

⁴ The U.S. Environmental Protection Agency revoked the 1997 eight (8) hour ozone standard in 2015. However, some areas have continuing obligations under the standard.

⁵ The secondary ambient air quality standard was not adjusted from the previously established standard.

⁶ The 1971 sulfur dioxide standards remain in effect until one (1) year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971

standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved, in accordance with 40 C.F.R. Part 52, Subpart S. (5 Ky.R. 376; Am. 997; eff. 6-6-1979; 10 Ky.R. 432; eff. 3-1-1984; 14 Ky.R. 1621; eff. 4-14-1988; TAm eff. 8-9-2007; 42 Ky.R. 2830; 43 Ky.R. 22; eff. 7-19-2016.)